

ABSTRACT OF THE DISCLOSURE

Disclosed is a magnetic memory apparatus which comprises a patterned magnetic recording medium in which multilayered films each having a first magnetic
5 layer, a nonmagnetic metal layer or a nonmagnetic insulating layer and a second magnetic layer deposited discretely on a conductive electrode layer formed on a substrate, and a cantilever array having a plurality of
10 cantilevers each having a conductive chip at its distal end. This provides a magnetic solid memory apparatus that has a large memory capacity and a super fast transfer rate, the merits of a hard disk apparatus, and a nanostructure and low power consumption, which are the merits of a semiconductor memory.